

CLAIM AMENDMENTS

1. (Currently Amended) A method of fabricating a semiconductor device comprising treating a wafer treatment of in a chamber with an etching gas, a first part of the wafer having a first etching property for the etching gas and a second part of the wafer having a second etching property, different from the first etching property, ~~in a chamber with a~~ for the etching gas for etching, including:

~~introducing~~ supplying the etching gas for etching into the chamber only during a first time period, wherein the etching gas is hydrofluoric acid gas, and

assuming that a time between introduction of the etching gas for etching into the chamber and starting of etching of the first part of the wafer is a first starting time, and a time between introduction of the etching gas for etching into the chamber and starting of etching of the second part of the wafer is a second starting time, longer than ~~said~~ the first starting time, supplying the etching gas for etching for a the first time period, which is longer than the first starting time but shorter than the second starting time, wherein the first starting time and the second starting time correspond to a time required for water generated by reaction of the etching gas with the first part and the second part, respectively, to reach an amount at which etching rate abruptly increases, and
evacuating the etching gas from the chamber.

2. (Previously Presented) The method of fabricating a semiconductor device according to claim 1, wherein the time difference between the first starting time and the second starting time is not more than about 5 seconds.

3. (Currently Amended) The method of fabricating a semiconductor device according to claim 1, further comprising:

forming a gate insulating film on the semiconductor substrate, and

forming a gate electrode on the insulating film, wherein

the first part of the wafer contains a reaction product generated before forming the gate electrode, covering the gate insulating film and the gate electrode,

the second part includes said gate insulating film, and

the etching gas for etching includes hydrofluoric acid.

4. (Currently Amended) The method of fabricating a semiconductor device according to claim 1, including introducing a reaction accelerating gas into the chamber

~~before introducing~~ supplying the etching gas for etching, for reducing the first starting time.

5. (Currently Amended) The method of fabricating a semiconductor device according to claim 4, including alternately introducing the reaction accelerating gas and the etching gas for etching.

6. (Currently Amended) The method of fabricating a semiconductor device according to claim 4, including continuously ~~adding~~ introducing the reaction accelerating gas into the chamber after starting ~~supply~~ supplying of the etching gas for etching into the chamber.

Claim 7 (Canceled).

8. (Previously Presented) The method of fabricating a semiconductor device according to claim 1, further comprising:

forming a conductive layer on a gate insulating film on the semiconductor substrate,

forming a layer for defining a mask on the conductive layer,

etching the conductive layer through a mask of the layer for defining a mask, thereby forming a gate electrode, and

removing the layer for defining a mask remaining on the gate electrode after formation of the gate electrode, wherein

the first part of the wafer includes the layer for defining a mask,

the second part of the wafer includes the gate insulator film, and

hydrofluoric acid gas is supplied as the gas for etching to remove the layer for defining a mask.

9. (Currently Amended) The method of fabricating a semiconductor device according to claim 8, including repeatedly supplying the etching gas for etching.

10. (Currently Amended) The method of fabricating a semiconductor device according to claim 9, including evacuating the chamber, and ~~alternatively, subsequently,~~ alternately supplying the etching gas for etching into the chamber and evacuating the chamber.

Claims 11-20 (Cancelled).

21. (New) The method of fabricating a semiconductor device according to claim 1, including repeatedly supplying the etching gas into the chamber only during respective sequential first time periods separated by respective second time periods.

22. (New) The method of fabricating a semiconductor device according to claim 21, including evacuating the etching gas from the chamber only during the second time periods.

23. (New) The method of fabricating a semiconductor device according to claim 21, including continuously evacuating the etching gas from the chamber during the first and second time periods.

24. (New) The method of fabricating a semiconductor device according to claim 1, including introducing a reaction accelerating gas into the chamber during a second time period, wherein the second time period immediately precedes the first time period.

25. (New) The method of fabricating a semiconductor device according to claim 24, including repeatedly supplying the reaction accelerating gas during respective second time periods, supplying the etching gas during respective first time periods immediately following corresponding second time periods, and evacuating the etching gas and the reaction accelerating gas from the chamber only during respective third time periods, each third time period immediately following a corresponding first time period.

26. (New) The method of fabricating a semiconductor device according to claim 24, including repeatedly supplying the reaction accelerating gas during respective second time periods, supplying the etching gas during respective first time periods immediately following corresponding second time periods, and evacuating the etching gas and the reaction accelerating gas from the chamber continuously during the first and second time periods.

27. (New) The method of fabricating a semiconductor device according to claim 4, wherein the reaction accelerating gas is one of water vapor, oxygen, ozone, nitrogen, helium, neon, and alcohol.

28. (New) The method of fabricating a semiconductor device according to claim 24, wherein the reaction accelerating gas is one of water vapor, oxygen, ozone, nitrogen, helium, neon, and alcohol.

29. (New) The method of fabricating a semiconductor device according to claim 1, wherein the first time period corresponds to a time during which etching is conducted.